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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/626,498

07/24/2003

Masami Amemiya

116-031421

1980

28289

7590

02/16/2005

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EXAMINER

SUCHECKI, KRISTYNA

ART UNIT

PAPER NUMBER

2882

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/626,498

Applicant(s)

AMEMIYA ET AL.

Examiner

Krystyna Suchecki

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 07/26/02. It is noted, however, that applicant has not filed a certified copy of the 2002-218126 application as required by 35 U.S.C. 119(b).

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 4 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an X-ray analyzer for analyzing cadmium or lead contained by a sample having a three filter system, does not reasonably provide enablement for the X-ray analyzer having only one filter. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The specification lacks a working example of a one filter X-ray analyzer.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: a detector by which the analysis may take place. Without a detector, the detecting function of Claims 1 and 4 cannot take place.

*Comment on Claims*

6. Claims 2 and 3 do not further limit the parent claims with any new structural limitations.

The limitations are functional in nature, only.

*Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claim 4 is rejected under 35 U.S.C. 102(e) as being anticipated by Laurila (US 2004/0240606).

9. Regarding Claim 4 Laurila teaches an X-ray analyzer for analyzing cadmium or lead (Paragraph 44, since both lead and cadmium have atomic numbers greater than 30) contained in a sample (Paragraph 44, “mineral matrix”) by directing primary X-rays from a target in an X-ray tube at the sample to excite secondary X- rays from the sample and detecting the secondary X-rays, said X-ray analyzer comprising (Abstract): an X-ray filter (52) for absorbing energies lower than said primary X-rays (XH) having energies higher than K[alpha]-line of said cadmium to irradiate the sample only with the high-energy primary X-rays (XH), the X-ray filter being located between the target in the X-ray tube and the sample (Paragraphs 29-30 and 44).

*Allowable Subject Matter*

10. Claims 1-3 and 5-8 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action.

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11. The following is a statement of reasons for the indication of allowable subject matter:

Claim 1 contains allowable subject matter for at least the reason that the prior art of record fails to teach or reasonably suggest an x-ray analyzer for making an analysis of a sample by directing primary X-rays from a target in an X-ray tube at the sample to excite secondary X-rays from the sample and detecting the excited secondary X-rays, said analyzer comprising first, second and third X-ray filters located between the target and X-ray tube and the sample as claimed.

12. Claims 2-3 and 5-8 contain allowable subject matter at least by virtue of their dependency.

### *Conclusion*

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patents or applications to Graf (US 2004/0264647), Albagli (US 6,418,193), Lanza (US 4,956,859), DeMone (US 5,033,075) and Wurzer (DE 198 32 973 A) are of interest for teaching or suggesting at least three filters in an X-ray system. However, the references fail to teach or suggest an x-ray analyzer for making an analysis of a sample by directing primary X-rays from a target in an X-ray tube at the sample to excite secondary X-rays from the sample and detecting the excited secondary X-rays with the multiple filters.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krystyna Suchecki whose telephone number is (571) 272-2495.

The examiner can normally be reached on M-F, 9-5.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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Craig E. Church  
Primary Examiner